

STATEMENT OF BASIS (AI No. 10041)

for draft Louisiana Pollutant Discharge Elimination System permit No. LA0007102 to discharge to waters of the State of Louisiana.

THE APPLICANT IS: Sanderson Farms, Inc.
Hammond Processing Facility
P.O. Box 1459
Hammond, LA 70404

ISSUING OFFICE: Louisiana Department of Environmental Quality (LDEQ)
Office of Environmental Services
Post Office Box 4313
Baton Rouge, Louisiana 70821-4313

PREPARED BY: Kelli Hamilton

DATE PREPARED: March 1, 2010

1. PERMIT STATUS

A. Reason For Permit Action:

Permit reissuance of a Louisiana Pollutant Discharge Elimination System (LPDES) permit for a 5-year term.

B. LPDES permit - LPDES permit effective date: March 1, 2005
LPDES permit expiration date: February 28, 2010

C. Date Application Received: September 1, 2009

2. FACILITY INFORMATION

A. FACILITY TYPE/ACTIVITY - poultry processing facility

Sanderson Farms, Inc., Hammond Processing Facility is an existing poultry processing facility. Live birds are received, slaughtered, cut-up, de-boned, marinated, and packaged for shipment. Production is 16 hrs/day, five days a week. Process water flows through screening to remove feathers and offal and is then directed to an anaerobic lagoon and an activated sludge clarifier. The process water is treated with UV disinfection prior to discharge.

B. FEE RATE

1. Fee Rating Facility Type: minor
2. Complexity Type: II
3. Wastewater Type: II
4. SIC code: 2015

C. LOCATION - 13111 Highway 190 West in Hammond, Tangipahoa Parish
Latitude 30°30'21", Longitude 90°30'29"

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3. OUTFALL INFORMATION

Outfall 001

Discharge Type: process wastewater, boiler blowdown, treated sanitary wastewater, and stormwater
 Treatment: screening, anaerobic lagoon, activated sludge clarifier, ultraviolet (UV) disinfection
 Location: at the point of discharge from the wastewater treatment facility
 Flow: 1.5 MGD
 Discharge Route: Yellow Water River

Outfall 003

Discharge Type: supernate, and stormwater
 Treatment: facultative lagoon
 Location: at the point of discharge from the facultative lagoon
 Flow: 0.22 MGD
 Discharge Route: Yellow Water River

4. RECEIVING WATERS

STREAM - Yellow Water River

BASIN AND SEGMENT - Lake Ponchartrain Basin, Segment 040504

DESIGNATED USES - a. primary contact recreation
 b. secondary contact recreation
 c. propagation of fish and wildlife

5. TMDL STATUS

Subsegment 040504, Yellow Water River-From headwaters to Ponchatoula Creek, is listed on LADEQ's Final 2006 303(d) List as impaired for phosphorus (EPA Category 5), organic enrichment/ low DO (EPA Category 5), TDS, and pathogen indicators. To date no TMDLs have been completed for this waterbody. A reopener clause will be established in the permit to allow for the requirement of more stringent effluent limitations and requirements as imposed by a TMDL. Until completion of TMDLs for the Lake Pontchartrain Basin, those suspected causes for impairment which are not directly attributed to the poultry processing point source subcategory have been eliminated in the formulation of effluent limitations and other requirements of this permit. Additionally, suspected causes of impairment which could be attributed to pollutants which were not determined to be discharged at a level which would cause, have the reasonable potential to cause or contribute to an excursion above any present state water quality standard were also eliminated.

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Outfalls 001 and 003 have the potential to discharge pollutants associated with the phosphorus impairment. Report requirements for phosphorus have been established in the permit for both outfalls. The reported values will be used in the total maximum daily load (TMDL) study for this waterbody. Upon completion of the TMDL, the report requirement will either be deleted, or a limit will be set.

Outfalls 001 and 003 have the potential to discharge pollutants associated with the organic enrichment/low DO impairment. The organic enrichment/low DO impairment shall be addressed through the CBOD5, ammonia, total nitrogen and dissolved oxygen parameters.

TDS is not among the effluent characteristics for discharges of treated process wastewater, boiler blowdown, treated sanitary wastewater, supernate, and stormwater runoff. Therefore, the discharges from this facility should not cause or contribute to the violation of water quality standards for this parameter.

Outfalls 001 and 003 have the potential to discharge pollutants associated with the pathogen indicators impairment. The pathogen indicators impairment shall be addressed through the fecal coliform parameter.

6. CHANGES FROM PREVIOUS PERMIT

Stormwater Pollution Prevention Plan requirements have been added to Other Conditions*.

*Upon the effective date of the final permit, this office will cancel in its entirety LAR05M009 issued on May 23, 2006.

7. COMPLIANCE HISTORY/COMMENTS

A. Compliance History

No records of recent compliance actions were found.

An inspection was conducted May 31, 2006.

B. DMR Review/Excursions - A DMR review was completed for January 2008 through December 2009. No excursions were reported.

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8. EXISTING EFFLUENT LIMITS

<u>Outfall 001</u>		<u>Outfall 003</u>	
CBOD	10:15	CBOD	16:26
TSS	15:23	TSS	20:30
O&G	8:14	O&G	8:14
Fecal Coliform	---:400	Fecal Coliform	---:400
NH-N		NH-N	
June-Oct.	4:5	June-Oct.	4:5
Nov.-May	4:8	Nov.-May	4:8
Total Nitrogen	103:147	Total Nitrogen	103:147
DO	5:---	DO	Report:Report
Phosphorus	Report:Report	Phosphorus	Report:Report
pH	6-9	pH	6-9

9. ENDANGERED SPECIES

The receiving waterbody, Subsegment 040504 of the Lake Ponchartrain Basin is not listed in Section 11.2 of the Implementation Strategy as requiring consultation with the U.S. Fish and Wildlife Service (FWS). This strategy was submitted with a letter dated January 11, 2010 from Rieck (FWS) to Nolan (LDEQ). Therefore, in accordance with the Memorandum of Understanding between the LDEQ and the FWS, no further informal (Section 7, Endangered Species Act) consultation is required. The effluent limitations established in the permit ensure protection of aquatic life and maintenance of the receiving water as aquatic habitat. Therefore, the issuance of the LPDES permit is not likely to have an adverse effect on any endangered or candidate species or the critical habitat.

10. HISTORIC SITES

The discharge is from an existing facility location, which does not include an expansion on undisturbed soils. Therefore, there should be no potential effect to sites or properties on or eligible for listing on the National Register of Historic Places, and in accordance with the "Memorandum of Understanding for the Protection of Historic Properties in Louisiana Regarding LPDES Permits" no consultation with the Louisiana State Historic Preservation Officer is required.

11. TENTATIVE DETERMINATION

On the basis of preliminary staff review, the Department of Environmental Quality has made a tentative determination to reissue a permit for the discharge described in the application.

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12. PUBLIC NOTICES

Upon publication of the public notice, a public comment period shall begin on the date of publication and last for at least 30 days thereafter. During this period, any interested persons may submit written comments on the draft permit and may request a public hearing to clarify issues involved in the permit decision at this Office's address on the first page of the statement of basis. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing.

Public notice published in:

Local newspaper of general circulation

Office of Environmental Services Public Notice Mailing List

13. STORM WATER POLLUTION PREVENTION PLAN (SWP3) REQUIREMENT

A SWP3 is included in the permit because in accordance with LAC 33:IX.2511.A.1, storm water shall not be required to obtain an LPDES permit "... except... discharges associated with industrial activity." In accordance with LAC 33:IX.2511.B.14.a-k, facilities classified as SIC code 2015 are considered to have storm water discharges associated with industrial activity.

For first time permit issuance, the SWP3 shall be prepared, implemented, and maintained within six (6) months of the effective date of the final permit. For renewal permit issuance, the SWP3 shall be reviewed and updated, if necessary, within six (6) months of the effective date of the final permit. The plan should identify potential sources of storm water pollution and ensure the implementation of practices to prevent and reduce pollutants in storm water discharges associated with industrial activity at the facility. (see Narrative Requirements for the AI)

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Rationale for Sanderson Farms, Inc.

1. Outfall 001 process wastewater, boiler blowdown, treated sanitary wastewater, and stormwater (estimated flow is 1.5 MGD)

<u>Pollutant</u>	<u>Limitation</u>		<u>Reference</u>
	Mo.	Avg:Daily Max (mg/l)	
Flow-MGD	Report	Report	LAC 33:IX.2707.1.1.b
CBOD ₅	10:15		BPJ; *
TSS	15:23		BPJ; *
Oil & Grease	8:14		40 CFR 432.122
Fecal Coliform (colonies/100ml)	---	400	BPJ; *; 40 CFR 432.122
NH ₃ -N			
June - Oct.	4:5		BPJ; *; 40 CFR 432.122
Nov. - May	4:8		40 CFR 432.122
Total Nitrogen	103:147		40 CFR 432.123
Dissolved Oxygen	5(min):---		BPJ; *
Phosphorus	Report:Report		BPJ; *
pH Min/Max	6 su:9 su		*;40 CFR 432.3

Treatment: screening, anaerobic lagoon, activated sludge clarifier, ultraviolet (UV) disinfection

Monitoring Frequency: weekly; phosphorus shall be reported quarterly.

Limits Justification: The facility is subject to the Meat and Poultry Products Point Source Category Effluent Limitation Guidelines (ELG), 40 CFR 432, Subpart L - Poultry Further Processing. However, some limits in the previous LPDES permit are more stringent than the ELGs.

The Meat and Poultry Products Point Source Category Effluent Limitation Guidelines (ELG), Subpart L - Poultry Further Processing, Best Practicable Control Technology (BPT) 40 CFR 432.122 limits BOD₅. However, due to the potential interference from NH₃-N in the BOD₅ test, it is LDEQ practice to limit CBOD₅ when NH₃-N is also limited at the outfall. Historically, in situations like this, LDEQ has not used a conversion factor when substituting BOD₅ with CBOD₅. The CBOD₅ limitations in the previous permit are more stringent than the BOD₅ limitations required in 40 CFR 432.122. Therefore, limitations are based on the previous LPDES permit by BPJ.

The TSS limitations are based on the previous LPDES permit by BPJ because they are more stringent than the ELGs at 40 CFR 432.122.

The oil and grease limitations are based on the Meat and Poultry Products Point Source Category Effluent Limitation Guidelines (ELG), Subpart L - Poultry Further Processing, Best Practicable Control Technology (BPT) 40 CFR 432.122.

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The fecal coliform daily maximum limitation is based on the previous LPDES permit and the Meat and Poultry Products Point Source Category Effluent Limitation Guidelines (ELG), Subpart L - Poultry Further Processing, Best Practicable Control Technology (BPT) 40 CFR 432.122.

The ammonia limitations are based on the previous LPDES permit and the Meat and Poultry Products Point Source Category Effluent Limitation Guidelines (ELG), Subpart L - Poultry Further Processing, Best Practicable Control Technology (BPT) 40 CFR 432.122.

The total nitrogen limitations are based on the Meat and Poultry Products Point Source Category Effluent Limitation Guidelines (ELG), Subpart L - Poultry Further Processing, Best Available Technology Economically Achievable (BAT) 40 CFR 432.123.

The dissolved oxygen (DO) limitation is based on the previous LPDES permit by BPJ because the receiving stream is impaired for organic enrichment/low DO.

The reporting requirements for phosphorus are based on the previous permit by BPJ because the receiving stream is impaired for phosphorus. The reported values will be used in the TMDL study for this waterbody. Upon completion of the TMDL, the report requirement will either be deleted, or a limit will be set.

The pH limitations are based on the Meat and Poultry Products Point Source Category Effluent Limitation Guidelines (ELG), 432.3 and the previous LPDES permit.

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2. Outfall 003 supernate, and stormwater (estimated flow is 0.22 MGD)

<u>Pollutant</u>	<u>Limitation</u> Mo. Avg:Daily Max (mg/l)	<u>Reference</u>
Flow-MGD	Report:Report	LAC 33:IX.2707.I.1.b
CBOD5	16:26	40 CFR 432.122; BPJ
TSS	20:30	40 CFR 432.122
Oil & Grease	8:14	40 CFR 432.122
Fecal Coliform (colonies/100ml)	---:400	BPJ; *; 40 CFR 432.122
NH3-N		
June - Oct.	4:5	BPJ; *; 40 CFR 432.122
Nov. - May	4:8	40 CFR 432.122
Total Nitrogen	103:147	40 CFR 432.123
Dissolved Oxygen	Report(min):---	BPJ; *
Phosphorus	Report:Report	BPJ
pH Min/Max	6 su:9 su	*;40 CFR 432.3

Treatment: facultative lagoon

Monitoring Frequency: once/two weeks; phosphorus shall be reported quarterly.

Limits Justification: The facility is subject to the Meat and Poultry Products Point Source Category Effluent Limitation Guidelines (ELG), 40 CFR 432, Subpart L - Poultry Further Processing. However, some limits in the previous LPDES permit are more stringent than the ELGs.

The Meat and Poultry Products Point Source Category Effluent Limitation Guidelines (ELG), Subpart L - Poultry Further Processing, Best Practicable Control Technology (BPT) 40 CFR 432.122, limits BOD5. However, due to the potential interference from NH3-N in the BOD5 test, it is LDEQ practice to limit CBOD5 when NH3-N is also limited at the outfall. Historically, in situations like this, LDEQ has not used a conversion factor when substituting BOD5 with CBOD5. Therefore, the CBOD5 limitation is based on the 40 CFR 432.122 BOD5 limitation by BPJ. The previous LWDPS permit included mass limitations; however mass limitations are no longer included in the permit because they are not required by 40 CFR 432.122.

The TSS and oil and grease limitations are based on the Meat and Poultry Products Point Source Category Effluent Limitation Guidelines (ELG), Subpart L - Poultry Further Processing, Best Practicable Control Technology (BPT) 40 CFR 432.122.

The fecal coliform daily maximum limitation is based on the previous LPDES permit and the Meat and Poultry Products Point Source Category Effluent Limitation Guidelines (ELG), Subpart L - Poultry Further Processing, Best Practicable Control Technology (BPT) 40 CFR 432.122.

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The ammonia limitations are based on the previous LPDES permit and the Meat and Poultry Products Point Source Category Effluent Limitation Guidelines (ELG), Subpart L - Poultry Further Processing, Best Practicable Control Technology (BPT) 40 CFR 432.122.

The total nitrogen limitations are based on the Meat and Poultry Products Point Source Category Effluent Limitation Guidelines (ELG), Subpart L - Poultry Further Processing, Best Available Technology Economically Achievable (BAT) 40 CFR 432.123.

The dissolved oxygen (DO) report requirement is based on the previous LPDES permit by BPJ because the receiving stream is impaired for organic enrichment/low DO. The reported values will be used in the TMDL study for this waterbody. Upon completion of the TMDL, the report requirement will either be deleted, or a limit will be set.

The reporting requirements for phosphorus are based on the previous permit by BPJ because the receiving stream is impaired for phosphorus. The reported values will be used in the TMDL study for this waterbody. Upon completion of the TMDL, the report requirement will either be deleted, or a limit will be set.

The pH limitations are based on the Meat and Poultry Products Point Source Category Effluent Limitation Guidelines (ELG), 432.3 and the previous LPDES permit.

* Previous LPDES permit
BPJ Best Professional Judgement

su Standard Units

NOTE

For outfalls containing concentration limits, the usage of concentration limits is based on BPJ for similar outfalls since the flow is variable and estimated.